

Adapted Lesson Plan by Grace Hu

From:

<http://environment.nationalgeographic.com/environment/freshwater/change-the-course/water-footprint-calculator/>

Description:

This lesson is to be used in the freshwater ecology unit. In order to make students more aware of their own personal water use.

Grade Level:

12th grade AP environmental science. Prerequisites include previously passing Regents living environment, Regents chemistry and / or Regents earth science.

Topic:

Human impact of water use.

Time:

2, 45 minute class periods.

Standards:

Student Standards

- AP Enviro Sci V6. Human survival depends on developing practices that will achieve sustainable systems. • A suitable combination of conservation and development is required. • Management of common resources is essential.

Teacher Standards

- Danielson 3c. Engaging Students in Learning

Objectives:

- Student will work individually to calculate their own water usage
- Students will read and reflect on articles regarding water usage

Procedures / Methods

Day 1

Student Agenda

Aim: How much water do you think that you use on average in a year?

Do Now: On a post-it note, estimate your own annual water usage. The person that is closest will get a prize from the prize box.

Mini Lesson: get computer and log onto the water calculator at:

<http://environment.nationalgeographic.com/environment/freshwater>

Work Period: Students will virtually share out their water calculations

Closing: post their results on chart paper with estimate and actual. Calculate the difference.

Teaching Notes

Before the lesson:

- Book the computer cart
- Have chart paper and post-its available to use
- Time manage and circulate to insure that students are on topic

Day 2

Student Agenda

Aim: Learning about current events and issues surrounding water usage and quality

Do Now: Class discussion - why do you think water impacts our lives everyday?

Mini Lesson: log onto <http://environment.nationalgeographic.com/environment/freshwater>

Work Period: Have students choose an article of their choice to read and then write a journal reflection.

Use the following guided reflection worksheet and rubric

Lesson rationale: http://www.biologycorner.com/worksheets/article_of_the_week.html

Framing guide:

https://docs.google.com/document/d/1v-OVyRgRKc9tOLoIN0sFqWUxxiZ_fqxjqTXKnXtMSh0/edit

Rubric: attached below.

Closing: Share-out your summary on the classes google+ page

Teaching Notes:

Before the lesson:

- Book the computers
- Have students signed into a virtual community (ex. google+)

During the lesson:

- Circulate the classroom to make sure students are on topic

Assessment Rubrics

(also as [printable labels](#))

	Exceeds (3)	Meets (2)	Below (1)	Not Evident (0)
Establishes context and big idea of the article or the goal of the article				
Includes specific, relevant details and expands upon that detail with connecting thoughts and ideas				
Includes personal content, opinions or connections to self				
Demonstrates proper grammar, punctuation and style (turned in on time)				
Total out of 10				

Annotations Only

5 pts: A majority of the annotations are thoughtful, insightful, exhibits deep understanding of content,

4 pts: Most annotations are thoughtful, insightful, exhibits deep understanding of content

3 pts: Some annotations are thoughtful and show that student understands content and made an effort to read closely

2 pts: Very few annotations, at least 1-2 show that student has a rudimentary understanding of the content

1 pt: Very few annotations, irrelevant annotations, it is not apparent that student read the article